

AMENDMENTS TO THE CLAIMS

The following represents the complete listing of the claims in this application in the present state including any amendments sought to be entered at this time. In this paper, claims 59 and 64-65 are amended. All claims that have been canceled have been canceled without prejudice or disclaimer of any subject matter therein.

Listing of the Claims

1-50(canceled).

51(previously presented). A container handling system as in claim 65 wherein said hydraulic rotary actuator has a double-ended output shaft and wherein said mechanized pivoting arm arrangement includes a pair of spaced parallel arm members, each having a one-piece curved structure, each being attached to and operated by an end of said double-ended output shaft.

52(previously presented). A container handling system as in claim 65 wherein said control system includes a speed controller for controlling the pivoting speed of said mechanized pivoting arm arrangement based on sensed angular position thereof.

53(previously presented). A container handling system as in claim 51 wherein said control system includes a speed controller for controlling the pivoting speed of said mechanized

pivoting arm arrangement based on sensed angular position thereof.

54(canceled).

55(previously presented). A container handling system as in claim 65 wherein said arm position sensing system for sensing the angular position of said at least one arm includes an angular displacement transducer attached to sense the rotational position of said hydraulic rotary actuator.

56(previously presented). A container handling system as in claim 51 wherein said arm position sensing system for sensing the angular position of said at least one arm includes an angular displacement transducer attached to sense the rotational position of said hydraulic rotary actuator.

57(previously presented). A container handling system as in claim 52 wherein said arm position sensing system for sensing the angular position of said at least one arm includes an angular displacement transducer attached to sense the rotational position of said hydraulic rotary actuator.

58(canceled).

59(currently amended). A container handling system as in claim 64 further comprising mechanical stops associated with the extremes of operation of said mechanized arm, and wherein said hydraulic linear actuator is a hydraulic cylinder, said system further comprising computerized control means for damping the

action of said hydraulic cylinder toward the extremes of travel thereof.

60(previously presented). A container handling system as in claim 65 wherein said telescoping boom is mounted on a side loading refuse vehicle so as to enable the emptying of containers into a charging hopper of said vehicle.

61(previously presented). A container handling system as in claim 56 wherein said telescoping boom is mounted for lateral operation on a side loading refuse vehicle so as to enable the emptying of containers into a charging hopper of said vehicle.

62(previously presented). A container handling system as in claim 57 wherein said telescoping boom is mounted for lateral operation on a side loading refuse vehicle so as to enable the emptying of containers into a charging hopper of said vehicle.

63(canceled).

64(currently amended). A mechanized container handling system for mounting on a refuse vehicle comprising:

- (a) a telescoping boom adapted to be mounted on a refuse vehicle and selectively operable to move laterally therefrom for any selected distance between a fully extended and a fully retracted position;
- (b) a pivotally mounted mechanized arm arrangement carried

by said extensible boom and having a free end the pivoting of which describes a lift-and-dump radius, said arm arrangement including at least one arm member, said at least one arm member having a one-piece curved construction, and including a double acting reversible hydraulic linear actuator, wherein said curved construction of said at least one arm member reduces said lift-and-dump radius which thereby also reduces the necessary available lateral and vertical clearance space for vehicle loading operations ~~in relation to previous pivoting devices~~ and wherein said at least one arm member is connected to rotate on a mounting shaft carried by said extensible boom, and wherein rotation of said at least one arm member through a major arc accomplishes a complete lift and dumping operation;

- (c) a separately operated container grabber device for grabbing and releasing containers of interest, said grabber device being carried by the free end of said arm arrangement in an offset mounting;
- (d) a boom position sensing system for sensing the relative extension of said boom;

- (e) an arm position sensing system for sensing the angular position of said at least one arm member based on the rotational position of said mounting shaft;
- (f) actuators for extending and retracting said boom and operating said container grabber device; and
- (g) a control system for controlling the operation of said container handling system.

65(currently amended). A mechanized container handling system for mounting on a refuse vehicle comprising:

- (a) a telescoping boom adapted to be mounted on a refuse vehicle and selectively operable to move laterally from a side thereof;
- (b) a mechanized arm arrangement including a reversing hydraulic rotary actuator carried by said telescoping boom and having ~~an~~ at least one output shaft end, ~~an~~ at least one arm member having a one-piece structure which is curved to reduce its lift-and-dump radius to thereby reduce the necessary available lateral and vertical clearance space for vehicle loading operations ~~in relation to previous pivoting devices~~ described by the pivoting thereof, said arm having an end fixed to and rotated by said output shaft of said rotary actuator and a free end, wherein pivotal operation of said one-piece arm through a major arc

- accomplishes a complete lift and dump operation;
- (c) a separately operated container grabber device for grabbing and releasing containers of interest, said grabber device being carried by the free end of said at least one arm in an offset mounting arrangement;
 - (d) a boom position sensing system for sensing the relative lateral extension of said boom;
 - (e) an arm position sensing system for monitoring rotational position of said at least one arm based on a sensed rotational position of said hydraulic rotary actuator;
 - (f) actuators for extending and retracting said boom and operating said container grabber device; and
 - (g) a control system for controlling the operation of said container handling system, wherein said control system includes a speed controller for controlling the rotation speed of said rotary actuator.

66(previously presented). A container handling system as in claim 65 further comprising mechanical stops associated with the extremes of the rotational position of said one or more one-piece curved arms.